

YardMaster II Product Comparison

May '07



Make Model	HYSTER YardMaster II HR 45-31	KALMAR DRF450-65S5	KALMAR DRS4531-S5	FANTUZZI Formula 2 CS45KM	TEREX TFC45R-5H 'hc' version	LINDE C4531TL/4 & C4531TL/5	SMV SC4531TA5	CVS Ferrari 378.5 & 378.6
<u>Nominal capacity</u> lbs @ in.	99200 @ 73 68300 @ 152 35200 @ 252	99200 @ 73 66100 @ 150 33000 @ 248	99200 @ 79 68300 @ 152 33000 @ 252	99200 @ 75 68300 @ 152 33000 @ 252	99200 @ 94 69400 @ 152 35200 @ 252	99200 @ 69 68300 @ 150 35200 @ 246	99200 @ 94 68300 @ 152 35200 @ 252	99200 @ 70 68300 @ 152 30000 @ 252
<u>Liftheight</u> spreader, max. in.	600	594	586	589	582	528 & 626	587	587 & 629
Stacking maximum, 1st row	5x 9'6"	5x 9'6"	5x 9'6"	5x 9'6"	5x 9'6"	5x 8'6" & 6x 8'6"	5x 9'6"	5x 8'6" & 6x 8'6"
2nd row	3x 8'6" + 2x 9'6"	5x 8'6"	5x 8'6"	5x 8'6"	5x 8'6"	4x 9'6" & 5x 9'6"	5x 8'6"	5x 9'6" & 5x 9'6"
	4 x 9'6"	4x 9'6"	4x 9'6"	4x 9'6"	4x 9'6"	4x 8'6" & 5x 8'6"	4x 9'6"	4x 8'6" & 5x 8'6"
						2x 9'6" & 4x 9'6"		3x 9'6" & 4x 9'6"
<u>High-lift capacity</u>								
1 st row, 5-high 8'6" lbs	94700	94700	92590	No data	No data	99200 & 99200	99200	92500 & 92500
1 st row, 5-high 9'6" lbs	94700	92500	88100	77100	92590	--- & 77100	99200	88100 & 88100
2 nd row, 5-high 8'6" lbs	66100	66100	68300	No data	No data	--- & 55100	---	--- & 68300
2 nd row, 4-high 9'6" lbs	68300	66100	68300	68300	69400	--- & 68300	68300	68300 & 68300
3 rd row, 4-high 8'6" lbs	35200	33000	33000	No data	No data	--- & 35200	No data	--- & 33000
3 rd row, 3-high 9'6" lbs	35200	33000	33000	33000	35200	--- & 35200	35200	33000 & 33000
<u>Stability</u> (Forward & sideways)								
Machine weight (w/o load) lbs	161819	147268	150101	158732	161158	157410	154985	157410 & 158733
Front width in.	165	163	164	165	165	164	163	165
<u>Visibility</u>								
Front: (position cylinders & cab)	Excellent *)	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Powered sliding cab	Standard	Option extra	Option extra	Option extra	N/A	Option extra	Option extra	Option extra
Rearwards: (shape boom-towers, 'overhang' boom, cut-out of counterweight)	Excellent *)	Very Good	Good	Good	Very Good	Good	Good	Good
<u>Performance & Speeds</u>								
Engine Performance Hp	300	330	326	315	320	330	330	330
option Hp	365	375	330	330	---	---	---	---
Lift speed laden, std engine ft/min	49	49	57	47	(All data are specified in seconds, and cannot be compared)	55	41	49
@ xx% of max. 99,000lbs with optional engine ft/min	@ 75%= 77100	@ 70%=69400	@ 70%=69400	@ 68%=67200		@ ---	@ 100%	@ 100%
Liftspeed unladen ft/min	Option 55	option 49	option 57	option 47		---	---	---
Lowering laden/unladen ft/min	94	82	72	74		76	68	51
<u>Average</u> Lifting&Lowering ft/min	90 / 88	70/70	59/78	49/59		76/76	68/78	57/57
	80	64	66	57		70	64	53
	option 82	option 64	option 66	option 57		---	---	---
Drivespeed laden/unladen mph	12/14	13/15	13/15	14/15	15/15	13/15	14/15	14/14
<u>Manoeuvrability</u>								
Length L1 in.	455	460	460	445	466	457	450	458&473
with spreader @ xxxx l.c. in.	@ 73	Not specified	Not specified	@ 80	@ 96	@ 68	@ 76	@ 70
Length w/o spreader L2 in.	317	Not specified	Not specified	N/A	321	331	324	333
Wheel base in.	232	255	246	236	236	251	251	255
Turning radius in.	319	334	328	315	N/A	338	324	330
<u>Stacking</u> aisle Ast, for 20' / 40'								
1. With container centrally above the front axle ft	366/492	No data	389/496	No data	402/505	402/513	No data	386/500
2. With cont. @ xxxx l.c. in.	@67	No data	No data	No data	No data	@68	No data	No data
a. Without oper. clearance ft	468/555	No data	No data	No data	No data	No data	No data	No data
b. With 200 mm operating clearance ft	476/563	456/535	No data	No data	No data	507/574	490/570	No data
c. With 10% oper. clear. ft	515/610	No data	No data	No data	No data	No data	No data	No data
<u>Standard Equipment</u>								
Aiconditioning	Standard	Option extra	Option extra	Option extra	Standard	Option extra	Option Extra	Option Extra
Engine&Transm. protection	Standard	Standard	Standard	Option extra	No data	No data	No data	No data
Autoshift transmission	Standard	Standard	No data	No data	Standard	Standard	Option Extra	Option Extra
Load Moment System	Standard	Standard	Standard	Standard	Standard	Standard	Option Extra	Option Extra
- with weight indicator	Standard	Optional	No data	Standard	with 'HC' version	Standard	Option extra	Option extra
<u>Other specifications</u>								
Machine height in	185	177	176	193	183	193	177	186
					'h' version has considerably lower lift speeds, than 'hc' version			
#) Average of four lifting modes See page 4	*) See page 3		\$) See page 5		\$See page 5			

The information contained in this document is the result of side-by-side productivity comparisons of the Hyster YardMaster II and the equivalent Fantuzzi, Terex, SMV, Linde, CVS Ferrari and Kalmar trucks, as shown in published specifications.

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<u>Lift height</u> spreader, max. in.	600	594	586	589	582	528 & 626	587	587 & 629
Stacking maximum, 1st row	5x 9'6"	5x 9'6"	5x 9'6"	5x 9'6"	5x 9'6"	5x 8'6" & 6x 8'6"	5x 9'6"	5x 8'6" & 6x 8'6"
2nd row	3x 8'6"+2x 9'6" 4 x 9'6"	5x 8'6" 4x 9'6"	5x 8'6" 4x 9'6"	5x 8'6" 4x 9'6"	5x 8'6" 4x 9'6"	4x 9'6" & 5x 9'6" 4x 8'6" & 5x 8'6" 2x 9'6" & 4x 9'6"	5x 8'6" 4x 9'6"	5x 9'6" & 5x 9'6" 4x 8'6" & 5x 8'6" 3x 9'6" & 4x 9'6"
<u>High-lift capacity</u>								
1 st row, 5-high 8'6"	lbs 94700	94700	92590	No data	No data	99200 & 99200	99200	92500 & 92500
1 st row, 5-high 9'6"	lbs 94700	92500	88100	77100	92590	--- & 77100	99200	88100 & 88100
2 nd row, 5-high 8'6"	lbs 66100	66100	68300	No data	No data	--- & 55100	---	--- & 68300
2 nd row, 4-high 9'6"	lbs 68300	66100	68300	68300	69400	--- & 68300	68300	68300 & 68300
3 rd row, 4-high 8'6"	lbs 35200	33000	33000	No data	No data	--- & 35200	No data	--- & 33000
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YardMaster II Product Comparison 30-31 ton in 2nd row May '07

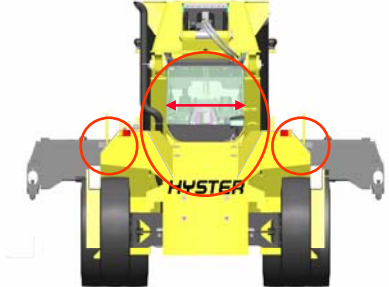
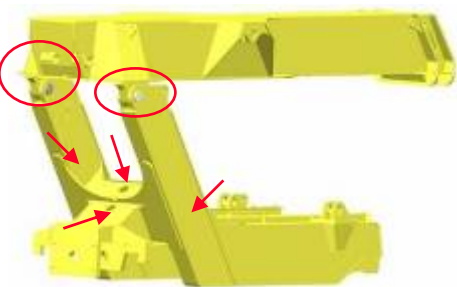


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<u>Visibility</u> Front: (position cylinders & cab) Powered sliding cab Rearwards: (shape boom-towers, 'overhang' boom, cut-out of counterweight)	Excellent *) Standard Excellent *)	Very Good Option extra Very Good	Very Good Option extra Good	Very Good Option extra Good	Very Good N/A Very Good	Very Good Option extra Good	Very Good Option extra Good	Very Good Option extra Good



Forwards visibility aspects:

* The 40' (and longer) bottom corner position (container on a trailer or train) is a potentially 'difficult' area to see, on every make of Reachstacker. The Hyster, YardMaster II has a **powered forward-sliding cab, option**, and the driver can 'slide-out' to an unobstructed view towards 40' (and 45'), also at low level height !



- Excellent rear visibility aspects:
- * Far-rear boom pivot point: Gives minimal 'overhang' of the boom, which prevents 'shutting the visibility window'.
 - There is always a horizontal view-line to the rear, also with the boom fully lifted.
 - * Spacing between the boom towers is widest in the industry: Giving a maximum visibility 'window'.
 - * Rear frame and boom towers are filled with counterweight: For a minimal size 'exterior' counterweight
 - * Counterweight has chamfered side fenders - for improved sideways-rear visibility.
 - * A deep central 'cut-out' provides for optimum rear visibility.

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Performance & Speeds								
Engine Performance	300 Hp	330	326	315	320	330	330	330
option Hp	365	375	330	330	---	---	---	---
Lift speed laden, std engine ft/min	49	49	57	.47	(All data is timed, and cannot be compared with speed)	55	41	49
@ xx% of max. 99,000lbs with optional engine	@75%= 77100	@70%=69400	@70%=69400	@68%=67200		@---	@100%	@100%
ft/min	Option 55	option 49	option 57	option 47		---	---	---
Liftingspeed unladen ft/min	94	82	72	74		76	68	51
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Average Lifting&Lowering ft/min	80	64	66	57		70	64	53
	option 82	option 64	option 66	option 57		---	---	---
Drivespeed laden/unladen mph	12/14	13/15	13/15	14/15	15/15	13/15	14/15	14/14
#) Average of four lifting modes See page 4								

#) Average of four lifting modes: Unladen lift speed = 110 ft/min, laden lift speed = 102 ft/min (with 70% load = 32 ton), unladen lowering speed = 96.4 ft/min, laden lowering speed = 92.5 ft/min.

Fast

- * The Hyster hydraulic system is highly efficient, and has 'Power on demand' and 'Two-speed lift' functions.
- * The result is **lifting speeds that are class leading**: The practical 4-mode average lifting speed is a fantastic **80.7 ft/min. #)**
- And all this with the **standard 300 Hp engine !**

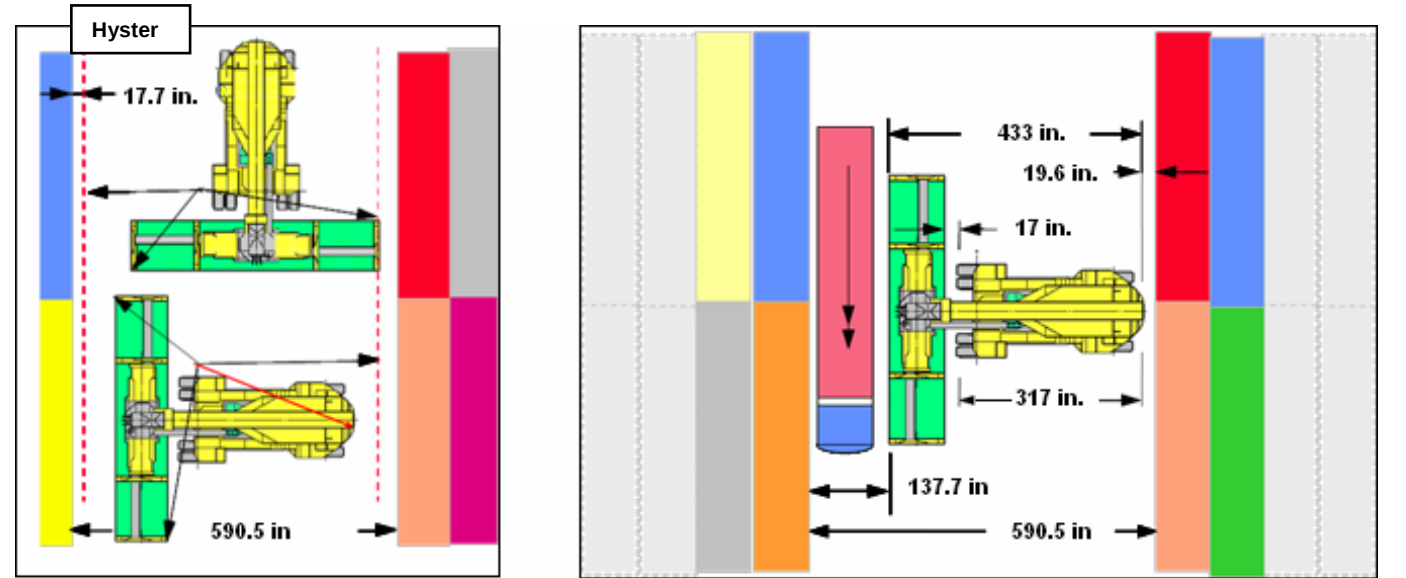
- The 4 mode average lifting speed improves 2% to 82 ft/min. with optional 365hp engine.

YardMaster II Container Handlers

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<u>Manoeuvrability</u>								
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with spreader @ xxxx l.c.	in. @ 73	Not specified	Not specified	@ 80	@ 96	@ 68	@ 76	@ 70
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<u>Stacking aisle Ast, for 20' / 40'</u>								
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<u>Standard Equipment</u> Air conditioning Engine & Trans. protection Auto/shift transmission Load Moment System - with weight indicator	Standard Standard Standard Standard Standard	Option extra Standard Standard Standard Optional	Option extra Standard No Data Standard No Data	Option extra Option extra No data Standard Standard	Standard No Data Standard Standard with 'hc' version	Option extra No Data Standard Standard Standard	Option Extra No Data Option Extra Option Extra Option extra	Option Extra No Data Option Extra Option Extra Option extra

Hyster YardMaster II Feature Summary': Standard

- **Air conditioning**
- **Electronic Load Moment Protection** system
- **Twistlock indicator lights**, on the spreader and in the cab roof,
- **Tropical cooling** package, for working in ambient of up to 122 degrees F.
- **Engine protection** system is standard
- **Automatic** transmission **shifting** is standard
With APC200 **soft-shift** system
With **protective lock-out** on fwd-rev. shifting

Optional

- **Powered Sliding Cab**
- **Load Moment Protection System** with color display
- **PDC** (Powered Damping Cylinders) spreader control (forward-backward 'tilt')
- **Powered Pile Slope** (PPS) on spreader

